

( $l_j$ ) and the preceding length and/or the length at rest ( $L_j$ ) of each edge in order to determine said composition of forces.

5. (Amended) Apparatus according to claim 1, characterised in that the memory zone is adapted to store, in association with each mesh, mechanical parameters of the material of the mesh ( $\lambda_n, \mu_n$ ), at least partially defined locally, particularly at the level of the mesh or elements thereof.

8. (Amended) Apparatus according to claim 1, characterised in that it comprises a module for developing a data structure and adapted to delete mesh sides or edges ( $A_i$ ) which connect two so-called "virtual" vertices ( $S_i$ ).

10. (Amended) Apparatus according to claim 1, characterised in that the module (30, 32, 36) adapted to determine the new positional data of the vertices ( $Q'n$ ) as a function of the composition of forces at each vertex, is adapted to determine said new positional data as a function of time (E3), which makes it possible to follow the evolution of the respective positions of the vertices over time.

12. (Amended) Apparatus according to claim 1, characterised in that the computer is capable of repeatedly determining the positional data of the vertices of the grid, with a view to determining the evolution of said positions over time ( $t + \Delta t$ ).

14. (Amended) Apparatus according to claim 1, characterised in that it comprises a user interface (IU) provided with a handling device (CLA, MO) for simulating one or more forces exerted globally on the subject.